

What is claimed is:

1. A system for connecting a cellular telephone located outside the range of a fixed cellular network, comprising:

a movable cellular station mounted on a vehicle;

5 a fixed cellular switching station;

a radio link providing a communication path between said movable cellular station and said fixed cellular station;

said movable cellular station being capable of receiving an indication from a cellular telephone that the cellular telephone is within a service area of said movable cellular station, and registering the presence of the cellular telephone with said fixed cellular switching station; and

said fixed cellular station being capable of notifying other cellular stations within said fixed cellular network to direct an incoming call for the cellular telephone to said fixed cellular station, receiving the incoming call for the cellular telephone, and directing the incoming call to the cellular telephone through the movable cellular station over the radio link.

2. The system of claim 1, said movable cellular station including at least one base control station.

3. The system of claim 1, said movable cellular station being further capable of creating an identification code in association with the cellular telephone, and storing said identification code.

4. The system of claim 1, said fixed cellular switching station being further capable of creating an identification code in association with the cellular telephone, and storing said identification code.

5. The system of claim 1, further comprising:

said fixed cellular switching station being further capable of creating a first identification code in association with the cellular telephone, storing said first

identification code, and routing incoming calls to said movable cellular station based in part on said first identification code; and

5 said movable cellular station being further capable of creating a second identification code in association with the cellular telephone, storing said second identification code, and routing an incoming call from said fixed cellular switching station to the cellular telephone based in part on said second identification code.

6. The system of claim 1, further comprising:

a system of satellites, said radio link being through one of said satellites;
10 means for changing said radio link to another of said satellites in response to the vehicle moving from an area covered by said one of said satellites to an area covered by said another of said satellites.

7. A movable cellular station mounted on a vehicle in communication with a fixed cellular switching station through a radio link, said movable cellular station comprising:

means for receiving a signal from a cellular telephone indicating that the cellular
15 telephone is within a service area of the movable cellular station;
means for sending, to the fixed cellular station, a request to register the presence of the cellular telephone as being within the service area of said movable cellular station;
means for receiving and routing incoming calls from the fixed cellular switching station through the radio link to the cellular telephone.

20 8. The station of claim 7 including at least one base control station.

9. The station of claim 7, further comprising:

means for creating an identification code in association with the cellular telephone;
means for storing said identification code; and
said means for receiving and routing being based in part on said identification
25 code.

10. A fixed cellular switching station in communication with a movable cellular station through a radio link, said movable cellular station comprising:

means for receiving a signal from the movable cellular station indicating that the cellular telephone is within a service area of the movable cellular station;

means for registering the presence of the cellular telephone as being within the service area of the movable cellular station;

5 means for sending an incoming call for the cellular telephone to the movable cellular station over the radio link.

11. The system of claim, 10 further comprising:

means for creating an identification code in association with the cellular telephone;

means for storing said identification code; and

10 said means for sending an incoming call being based in part on said identification code.

12. A method for connecting a cellular telephone within range of a movable cellular station and out of range of a fixed cellular network, the movable cellular station being in radio contact with the fixed cellular network, the method comprising:

15 receiving, at the movable cellular station, a signal from the cellular telephone;
registering the cellular telephone with the fixed telephone switching station in response to said receiving;

communicating the registration from the fixed cellular switching station to other switching stations within the fixed cellular network; and

20 directing an incoming call to the cellular telephone through the fixed cellular switching station and the movable cellular station.